AMENDMENTS TO THE CLAIMS

1.   (Previously presented) A notification system embodied on a computer-readable storage medium, comprising computer-executable instructions that, when executed on a computer, implement:

a component that generates a notification to a user of the computer when displayed on a display screen of one or more display screens of the computer, the notification being associated with a message having an assigned urgency; and

an information controller that:

receives attentional inputs associated with the user and determines the user's current activity and focus of attention based on the attentional inputs,

dynamically selects a location on the one or more display screens based on the user's current activity and focus of attention and the assigned urgency; and

presents an information herald representing the notification in the selected location,

wherein the selected location is such that the distance of the information herald from the user's focus of attention decreases as the urgency increases.

2.   (Previously presented) The system of claim 1, the information controller receives inputs regarding user activities and employs one or more attention models to generate one or more dynamic outputs to control how the information herald is provided to users at a workspace.

3.   (Previously presented) The system of claim 2, the information herald operates at various locations in the workspace and receives dynamically adjustable data from the information controller in order to control the location and format of the information herald.

4.   (Original) The system of claim 2, the information controller provides attention-sensitive placement and configuration of the information herald based on a user's activity via the attention models or other inputs about focus of visual attention including gaze and pose information.

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5.   (Previously presented) The system of claim 1, the information controller removes the information herald after some threshold time or fades the information herald from view over time.

6.   (Original) The system of claim 1, the information herald provides more detailed information when a user selects the information herald via an input command.

7.   (Previously presented) The system of claim 6, the input command includes at least one of a keystroke, mouse click, a mouse hover, and or voice command.

8.   (Original) The system of claim 1, the information controller includes controls for timing out after a wait period, allowing users to continue to work with or without a glance at the information herald.

9.   (Original) The system of claim 8, the information controller processes an implicit signal from users that they are not interested by information presented in the information herald without requiring an explicit user action.

10.   (Previously presented) The system of claim 1, the information controller includes at least   one of a dynamic positioning control, a dynamic sizing control, a dynamic content control, a dynamic rendering control, a dynamic audio control, a dynamic timing control, and or a dynamic fading control.

11.   (Previously presented) The system of claim 10, the dynamic rendering control changes the appearance of the information herald or content therein based on the urgency value and the user's determined activity, the appearance including at least one of colors, shapes, and or fonts.

12.   (Original) The system of claim 1, the information herald is dynamically adjusted to an iconic form based upon the summarized notification or an action by the user.

13.   (Previously presented) The system of claim 1, the summarized notifications include at least one of a line of message, a message chunk, or a message outline.

14.   (Cancelled)

15.   (Original) The system of claim 1, the information herald is dynamically positioned based upon an automatically determined urgency value for a notification.

16.   (Original) The system of claim 1, further comprising an audio herald that is controlled by the information controller using auditory cues that represent the urgency of an incoming message.

17.   (Original) The system of claim 16, the information controller only uses the audio herald, or adds an audio cue when no user is detected.

18.   (Previously presented) The system of claim 1, the information controller employs a dwell time for display of the information herald whose duration dynamically adjusts based on at least one of the distance of the herald's display location from the user's focus of attention or the user's workload.

19.   (Previously presented) The system of claim 18, the information herald is appended to a herald journal or folder after a predetermined time, the herald journal or folder allowing a user to inspect the information herald at a later time.

20.   (Cancelled)

21.   (Currently amended) A system embodied on a computer-readable storage medium that facilitates message processing by a user, comprising:

means for automatically prioritizing a message;

means for ~~summarizing~~ generating a herald containing a summary of the message;

means for determining a user's current focus of attention;

means for dynamically locating the herald ~~the message~~ in a user's workspace;

means for expanding the information relating to the message presented in the user's workspace based on a user input involving the herald,

wherein:

the priority of the message increases as time passes without the user providing the user input involving the herald; and

the means for dynamically locating the herald locates the herald such that the distance between the ~~message~~ herald location and the user's focus of attention decreases with increasing message priority.

22.   (Original) The system of claim 21, further comprising means for analyzing the user's activities in order to dynamically locate the message.

23.   (Currently amended) A method for automatically notifying a user, comprising:

operating a processor to perform a method comprising:

automatically determining an output region of a display for a message;

automatically determining a priority for the message;

automatically placing the message in the output region;

automatically determining a focus of attention of a user;

automatically placing the output region in a default region of a workspace;

increasing the priority of the message based on a passage of time; and

dynamically moving the output region ~~increasingly closer,~~ the output region being spaced relative to the determined focus of attention such that:

the separation between the output region and the focus of attention decreases as ~~in relation to~~ the priority of the message ~~as the priority~~ increases; and

the output region is separated from the focus of attention such that the output

region does not overlay a current work position.

dynamically moving the output region ~~increasingly closer to~~, the output region being spaced

relative to the user's focus of attention [[as]] such that:

the separation between the output region and the focus of attention decreases as the

priority of the message increases; and

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24.   (Cancelled)

25.   (Previously presented) The method of claim 23, further comprising automatically

locating the output region based upon the priority.

26.   (Previously presented) The method of claim 23, further comprising automatically

changing the appearance of the output region based upon at least one of the priority or the user's

detected activities.

27.   (Previously presented) The method of claim 23, further comprising automatically

applying at least one control to dynamically change the output region, the at least one control

associated with at least one of a position, a size, a content, an appearance, a sound, or a time.

28.   (Previously presented) The method of claim 23, further comprising automatically

summarizing the message prior to placing the message in the output region.

29.   (Previously presented) The method of claim 23, further comprising automatically

moving content associated with the output region to an electronic journal for deferred review.

30.   (Previously Presented) The method of claim 23, the detected activities are

determined in accordance with the model.

31.   (Previously presented) The method of claim 30, the model processes at least one of a location, a visual pose, a calendar, a time, an appointment status, an acoustical signal, an application in focus, an inspection interval, an application usage pattern, and or user device activity to determine an attentional focus of a user.

32.   (Previously presented) A method for controlling notifications to a user, comprising: operating at least one processor to perform a method comprising:

      monitoring a user's activities;

      determining an attentional state of the user based on the user's activities;

      determining a location on a display of the user's current focus of attention;

      constructing an attention model to analyze the user's activities, the attention model analyzes a utility capturing a cost of a user in an attentional state being disrupted by a task or communication event;

      selecting a distance based at least in part on the utility generated from the attention model; and

      dynamically placing information alerts within a workspace at the selected distance from the user's current focus of attention.

33.   (Cancelled)

34.   (Cancelled)

35.   (Previously presented) The method of claim 32, the cost is assessed as a willingness to pay to avoid a disruption in dollars for a respective combination of disruptions.

36.   (Previously presented) The method of claim 32, further comprising computing an expected cost of interruption (ECI) by summing over utilities, weighted by a likelihood of respective states of attention, conditioned on a stream of incoming sensory information, wherein ECI is stated as:

$$ECI = \sum_{j} p(A_j \mid E) u(D_i, A_j)$$

wherein:

$u(D_i, A_j)$ is the utility;

A_i is the attentional state;

D_i is the task or communication event; and

$p(Aj \mid E)$ is the probability of an attentional state, conditioned on an evidence stream E.

37.   (Previously presented) A method for controlling notifications to a user, comprising:

monitoring a user's activities;

determining a focus of attention of the user based on the monitored activities;

providing one or more user controls on a display, the user controls allowing a user to configure preferences regarding how the herald is displayed, and the preferences including at least a setting that allows a user to specify a threshold herald priority level below which a herald will remain at a periphery of the display;

determining a priority for a received herald;

dynamically controlling the display location of the received herald, the dynamically controlling comprising:

when the priority of the received herald is below the threshold level, displaying the herald at a location on the periphery of the display; and

when the priority of the received herald is above the threshold level, displaying the herald at a location that is a from the user's determined focus of attention selected based at least in part on the priority.

38.   (Previously presented) The method of claim 37, further comprising providing an entry point into the user controls for the herald for configuring policies regarding positioning and rendering of the heralds.

39.   (Original) The method of claim 37, further comprising providing a particular region or button with the herald that allows entry into controls for adjustment in general or for the case at hand.

40.   (Previously presented) The method of claim 37, the one or more user controls comprise a rich control panel for specifying preferences about heralds.

41.   (Original) The method of claim 37, further comprising controls for opening and closing complex structures associated with the herald.

42.   (Original) The method of claim 37, the controls include general gestures that enables users to ignore the herald for a time period.

43.   (Previously presented) The method of claim 42, the controls are coupled with a "snooze" feature, allowing user to indicate a predetermined period for the herald to return.

44.   (Previously presented) The method of claim 37, the herald is dynamically positioned with respect to the user's determined focus of attention based upon an urgency associated with a message.

45.   (Original) The method of claim 37, further comprising automatically providing a list of heralds that have been missed while a user has been detected to be away.

46.   (Original) The method of claim 45, further comprising providing a time-out function based upon a determined importance of the heralds appearing in the list of herald.

47.   (Original) The method of claim 46, further comprising sorting important heralds into a first folder and time-out heralds in a subsequent folder.

48.   (Original) The method of claim 37, further comprising automatically analyzing spatial and temporal constraints that are based on a type of software application, a configuration of displayed information associated with the application, or current or recent specific interactions with application content.

49.   (Original) The method of claim 48, the constraints are employed to ensure that a herald does not obfuscate important content or disrupt a current interaction and to minimize the disruptiveness of a rendering of the herald.

50.   (Original) The method of claim 48, further comprising automatically positioning a keep out area over selected portions of a user's display or displays to ensure that a herald is not placed in a position that will overlay a position where a user is currently working.

51.   (Original) The method of claim 50, further comprising processing a user's current activity and providing a brief temporal keep out area that is applied to delay a herald rendering.